

PME289

- EMI suppressor, classes Y2 and X1, metallized paper
- 0.001 – 0.022 μF , 250 VAC Y2, 300 VAC X1, +100 °C

- Self-extinguishing encapsulation. The material is recognized according to UL 94 V-0.
- Very precise positioning of the leads in relation to the case giving efficient utilisation of PC board space.
- Excellent self-healing properties. Ensure long life even when subjected to frequent overvoltages.
- High dU/dt capability.
- Good resistance to ionisation due to impregnated dielectric.
- The capacitors meet the most stringent IEC humidity class, 56 days.
- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

TYPICAL APPLICATIONS

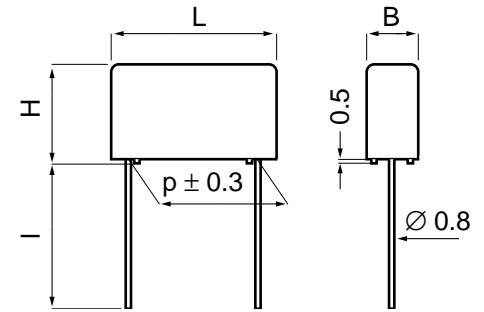
The capacitors are intended for use as interference suppressors in Y2 applications, line-to-earth.

CONSTRUCTION

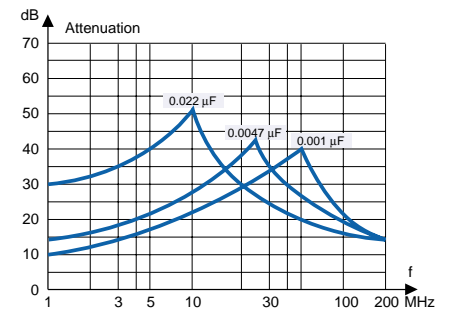
Multi-layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0.

TECHNICAL DATA

Rated voltage	250 VAC, Y2; 300 VAC, X1; 50/60 Hz
Capacitance range	0.001 – 0.022 μF
Capacitance tolerance	$\pm 20\%$
Temperature range	-40 to +100 °C
Climatic category IEC	40/100/56/C
Approvals	S, N, D, FI, VDE, SEV, IMQ, UL, CSA
Dissipation factor $\tan\delta$	$\leq 1.3\%$ at 1 kHz
Insulation resistance	$\geq 12000\text{ M}\Omega$ Measured at 500 VDC after 60 s, +23°C
Resonance frequency	Tabulated self-resonance frequencies f_0 refer to 5 mm lead length.
In DC applications	Recommended voltage: $\leq 1000\text{ VDC}$
Test voltage between terminals	The 100% screening factory test is carried out at 3000 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.



l = standard : 30 +5/-0 mm
option : short leads, tolerance +0/-1 mm (standard 6 mm, code R06)
Other lead lengths on request



Suppression versus frequency. Typical values.

ENVIRONMENTAL TEST DATA

Vibration	IEC 60068-2-6 Test Fc	3 directions at 2 hour each 10 – 500 Hz at 0.75 mm or 98 m/s ²	No visible damage No open or short circuit
Bump	IEC 60068-2-29 Test Eb	4000 bumps at 390 m/s ²	No visible damage No open or short circuit
Solderability	IEC 60068-2-20 Test Ta	Solder globule method	Wetting time < 1 s
Active flammability	EN 132400		
Passive flammability	IEC 60384-14 (1993) EN 132400		
Humidity	IEC 60068-2-3 Test Ca	+40°C and 90 – 95% R.H.	56 days

ARTICLE TABLE

Capacitance µF	Max dimensions in mm				Quantity per package reel			Weight g	f _o MHz	Max dU/dt V/µs	Approvals								Article code 1 st block	
	B	H	L	p	R30 pcs	R06 pcs	taped pcs				S	Z	D	UL	VDE	SEV	IMQ	UL		CSA
0.0010	4.5	11.5	13.0	10.0	800	1600	700	1.2	56.0	2000	√	√	√	√	√	√	√	√	√	PME289MA4100M
0.0015	4.5	10.5	13.0	10.0	800	1600	700	1.1	46.0	2000	√	√	√	√	√	√	√	√	√	PME289MA4150M
0.0022	5.5	10.5	13.0	10.0	800	1200	600	1.3	39.0	2000	√	√	√	√	√	√	√	√	√	PME289MA4220M
0.0025	5.5	10.5	13.0	10.0	800	1200	600	1.3	36.0	2000	√	√	√	√	√	√	√	√	√	PME289MA4250M
0.0033	5.5	12.5	13.0	10.0	800	1200	600	1.5	31.0	2000	√	√	√	√	√	√	√	√	√	PME289MA4330M
0.0039	5.5	12.5	13.0	10.0	800	1200	600	1.5	28.0	2000	√	√	√	√	√	√	√	√	√	PME289MA4390M
0.0047	5.5	13.5	13.0	10.0	600	1200	600	1.6	26.0	2000	√	√	√	√	√	√	√	√	√	PME289MA4470M
0.0047	5.5	13.0	18.0	15.0	500	1000	600	1.9	23.0	1400	√	√	√	√	√	√	√	√	√	PME289MB4470M
0.0068	5.5	14.0	18.0	15.0	500	800	600	2.0	18.0	1400	√	√	√	√	√	√	√	√	√	PME289MB4680M
0.010	7.5	13.5	18.0	15.0	400	600	400	2.6	15.0	1400	√	√	√	√	√	√	√	√	√	PME289MB5100M
0.015	8.5	14.5	18.0	15.0	250	500	400	3.0	12.0	1400	√	√	√	√	√	√	√	√	√	PME289MB5150M
0.022	8.5	17.0	18.0	15.0	250	400	400	3.6	9.8	1400	√	√	√	√	√	√	√	√	√	PME289MB5220M

APPROVALS/REFERENCE DOCUMENTS

Country	Specification	Approval reference
S = Sweden	EN 132400	9511106 (Y2, X1)
N = Norway	EN 132400	P95101668 (Y2, X1)
D = Denmark	EN 132400	303827 (Y2, X1)
FI = Finland	EN 132400	182217 (Y2, X1)
VDE = Germany	VDE 0565 Teil 1/12.79	35072
SEV = Switzerland	EN 132400	96.7 70089.01 (Y2)
IMQ = Italy	CEI 40-7/VI-1980	V 1307
UL = USA	UL 1283	E 100117
	UL 1414 (250 VAC)	E 73869
CSA = Canada	C 22.2 No. 8	53108
	C 22.2 No. 1 (250 VAC)	53108

MARKING

- RIFA
- RIFA article code
- Rated capacitance
- Rated voltage
- Y2
- SH, for self healing
- Climatic category according to IEC 60068-1, appendix A
- Passive flammability class
- Approval marks
- Manufacturing code (year, month)

ORDERING INFORMATION

Article code																			
1st block						2nd block													
See article table						Options:													
Pos. 13, capacitance tolerance code:						Short leads: e.g. 6 mm, add R06													
M = ± 20%						Reel taped: Add T0 or T1 in pos. 14–15.													
P	M	E	2	8	9	M	A	4	2	2	0	M	R	0	6				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

PACKING

Capacitors in standard design (lead length 30 mm) and with lead length 5 or 6 mm are packed bulk in a box with dimensions 245 x 145 x 80 mm. Quantity/package as per article table.

Reels with taped capacitors are packed 10 in a box with dimension 370 x 370 x 560 mm. The standard quantity/reel is for 360 mm reel. If 500 mm reel is required, it must be specified when ordering and the quantity is 2 x the given quantity.